



Protein-engineered injectable hydrogel to improve retention of transplanted adipose-derived stem cells.

Journal: Adv Healthc Mater

Publication Year: 2013

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PubMed link: 23184882

Funding Grants: Preparation and Delivery of Clinically Relevant Numbers of Stem Cells Using 3D Hydrogels

## **Public Summary:**

Improved retention of transplanted stem cells is achieved through minimally invasive delivery in MITCH, a mixing-induced two-component hydrogel that was engineered to possess shear-thinning and self-healing thixotropic properties. MITCH, an ideal injectable cell-delivery vehicle, supports 3D stem-cell culture, resulting in high cell viability and physiologically relevant cell morphology.

## Scientific Abstract:

Improved retention of transplanted stem cells is achieved through minimally invasive delivery in MITCH, a mixing-induced two-component hydrogel that was engineered to possess shear-thinning and self-healing thixotropic properties. MITCH, an ideal injectable cell-delivery vehicle, supports 3D stem-cell culture, resulting in high cell viability and physiologically relevant cell morphology.

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